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European markets for Fish,

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DEPARTMENT OF COMMERCE

U.S. BUREAU OF FOREIGN AND DOMESTIC COMMERCE

E. E. PRATT, Chief

MISCELLANEOUS SERIES—No. 25

EUROPEAN MARKETS FOR FISH

WASHINGTON
GOVERNMENT PRINTING OFFICE
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CONTENTS.

	Page.
Letter of submittal	5
Introduction	7
United Kingdom	16
Germany	19
France	23
Russia	24
Netherlands	27
Spain	27
Italy	28
Roumania	30
Serbia	31
Greece	32
Bulgaria	34
Switzerland	35
Egypt	36

LETTER OF SUBMITTAL.

DEPARTMENT OF COMMERCE,
BUREAU OF FOREIGN AND DOMESTIC COMMERCE,
Washington, March 31, 1915.

SIR: There is submitted herewith a report on the European markets for fish, with a few additional paragraphs on the Egyptian industry. With the exception of a few extracts from consular reports, the information and statistics have been compiled in the Bureau.

Respectfully,

E. E. PRATT,
Chief of Bureau.

To Hon. WILLIAM C. REDFIELD,
Secretary of Commerce.

EUROPEAN MARKETS FOR FISH.

INTRODUCTION.

Although the catch of the American fisheries is as valuable as that of any other country in the world, it is not so important as some others in proportion to the size and population of the country. In some parts of the United States fish forms an important part of the diet, but in most sections it is looked upon simply as an occasional substitute for the customary meat and not at all as a necessity. It is therefore difficult for the American to appreciate the importance of fisheries to great sections of Europe, where any diminution in the fish supply would mean actual hardship.

The statistics contained in this report have been brought together to show the extent to which various European countries depend upon the fisheries. A glance at these statistics will indicate the seriousness of any prolonged interruption of the European industry.

For purposes of comparison there are inserted here two tables of statistics relating to the fishing industry in the United States. The first shows the American catch of the more important fishes in 1908, as determined by the Bureau of the Census in conjunction with the Bureau of Fisheries:

Species.	Pounds.	Value.	Species.	Pounds.	Value.
Oysters	233,309,000	$15,713,000	Catfish	17,817,000	$785,000
Salmon	90,417,000	3,347,000	Mussel shells, pearls, and slugs	81,869,000	692,000
Cod	110,054,000	2,914,000	Snapper	13,854,000	651,000
Shad	27,641,000	2,113,000	Alewives	89,978,000	589,000
Lobster	15,279,000	1,931,000	Flounders	23,346,000	588,000
Clams	16,717,000	1,896,000	Pike perch	15,247,000	580,000
Squeteague	49,869,000	1,776,000	Sponges	622,000	545,000
Halibut	34,441,000	1,562,000	Whitefish	7,722,000	524,000
Haddock	59,987,000	1,308,000	Bluefish	7,647,000	506,000
Carp, German	42,763,000	1,135,000	Buffalo fish	16,729,000	498,000
Lake herrings	41,118,000	989,000	Shrimp and prawn	19,080,000	494,000
Crabs	52,913,000	912,000	Hake	34,340,000	464,000
Mullet	33,703,000	908,000	Pollack	29,462,000	402,000
Menhaden	394,776,000	893,000	All other	183,577,000	6,872,000
Mackerel	12,103,000	848,000			
Lake trout	12,024,000	800,000			
Herrings, salt-water	125,050,000	796,000	Total	1,893,454,000	54,031,000

The second table indicates the distribution of the American fisheries; it shows the output of the various State fisheries in 1908:

States.	Pounds.	Value.	States.	Pounds.	Value.
Massachusetts	244,313,000	$7,095,000	Delaware	70,769,000	$541,000
Virginia	312,515,000	4,716,000	Pennsylvania	11,888,000	513,000
New York	76,485,000	4,594,000	Texas	10,439,000	446,000
Washington	100,456,000	3,513,000	Alabama	10,665,000	387,000
Florida	74,087,000	3,389,000	Missouri	6,751,000	271,000
Maryland	113,796,000	3,306,000	South Carolina	14,104,000	288,000
Maine	173,843,000	3,257,000	Indiana	15,507,000	223,000
New Jersey	74,827,000	3,069,000	Iowa	8,867,000	215,000
Connecticut	66,942,000	2,982,000	Arkansas	12,567,000	207,000
California	47,477,000	1,970,000	Minnesota	7,475,000	192,000
North Carolina	101,422,000	1,776,000	Tennessee	4,506,000	112,000
Rhode Island	44,254,000	1,752,000	Kentucky	5,390,000	110,000
Louisiana	46,106,000	1,569,000	New Hampshire	677,000	53,000
Michigan	38,302,000	1,473,000	Kansas	432,000	28,000
Ilinois	74,620,000	1,436,000	Nebraska	399,000	22,000
Oregon	28,217,000	1,356,000	South Dakota	70,000	4,000
Wisconsin	30,953,000	1,067,000	West Virginia	33,000	2,000
Ohio	28,917,000	840,000	Oklahoma	8,000	.....
Georgia	14,828,000	701,000			
Mississippi	20,547,000	556,000	Total	1,893,454,000	54,031,000

More recent statistics for the total catch of all the American fisheries are not available, but the Bureau of Fisheries issues annual bulletins that show in considerable detail the extent and value of certain selected fisheries. Such a bulletin relating to the fishery products landed at Boston and Gloucester during the calendar year 1914 has just been issued.

The Boston and Gloucester fleets in 1914 numbered 393 vessels of all classes. They brought in 7,598 fares or trips of fish, aggregating 162,589,220 pounds, for which the fishermen received $4,395,030. The catch of the principal fishes as landed in a fresh, frozen, or salted condition was as follows:

Species.	Pounds.	Value.	Species.	Pounds.	Value.
Cod	47,529,625	$1,359,416	Halibut	3,379,585	$276,350
Haddock	57,754,128	1,381,156	Herrings	10,748,847	227,213
Hake	12,752,971	242,503	Mackerel	6,688,850	354,725
Pollack	12,454,723	199,736	Swordfish	1,499,844	177,669
Cusk	5,858,990	102,779	All others	3,921,657	73,483

Practically the entire catch of the vessels discharging at Boston consisted of fresh fish, which were sold in that condition, while about two-fifths of the receipts at Gloucester were salted, and a large part of those brought in fresh were subsequently salted before sale.

EXPORTS OF AMERICAN FISH.

The only American fish product that is exported on a large scale is canned salmon. This well-known article is sold all over the world, although three-fourths of the exports go directly to England, from which country it is reexported in large quantities. Exports of canned salmon in 1914 totaled nearly $8,000,000, of which practically $6,000,000 worth went to England. The exports of all American fish and fish products for the fiscal years 1910, 1913, and 1914 are shown by countries of destination in the following table:

FRESH FISH, EXCEPT SALMON.

Countries of destination.	1910		1913		1914	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Europe:						
Denmark					18,375	$2,060
Germany	32,054	$2,885	90,815	$12,340	339,616	43,280
Sweden					2,600	320
United Kingdom—England					43,161	4,978
North America:						
Bermuda					2,615	346
Canada	4,245,054	190,514	5,277,775	269,933	5,166,956	260,089
Central American Sts.—Panama					24,296	1,803
Mexico	32,222	2,986	10,104	791	5,407	634
West Indies—						
British—						
Jamaica			212	18		
Other British			950	47	1,500	187
Cuba	341,332	14,488	64,234	2,346	855,279	48,078
South America:						
Brazil	637	69				
Colombia	1,000	58				
Oceania:						
British—Australia					3,850	188
Philippine Islands	51,114	2,870	73,158	5,857	70,805	4,908
Total	4,703,413	213,870	5,517,248	291,332	6,534,460	366,871

DRIED, SMOKED, OR CURED COD, HADDOCK, HAKE, AND POLLOCK.

Countries of destination.	1910		1913		1914	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Europe:						
France	205	$10				
Germany	21,000	618				
Greece			2,250	$200		
Italy	120,360	4,825				
Portugal	7,300	300				
United Kingdom—England	10,000	475	24,000	1,350	1,000	$75
North America:						
Bermuda	561	50	1,028	91	4,905	406
British Honduras	77,259	3,111	99,262	5,303	117,017	6,180
Canada	44,354	2,106	91,376	6,299	113,469	6,521
Central American States—						
Costa Rica	23,760	1,425	55,745	3,639	74,265	4,878
Guatemala	80,191	4,738	125,643	8,610	132,317	10,110
Honduras	26,066	1,127	62,156	3,342	67,702	3,822
Nicaragua	27,450	1,034	40,522	2,192	31,942	1,766
Panama	270,174	13,210	186,654	9,919	140,224	10,133
Salvador	6,020	460	9,980	837	12,500	1,196
Mexico	31,628	2,300	100,905	7,705	108,631	8,454
Newfoundland and Labrador	1,060	52	1,607	119	1,080	56
West Indies—						
British—						
Barbados	122,994	7,006	7,100	335	4,500	252
Jamaica			31,842	2,030	17,010	905
Trinidad and Tobago			2,904	150	79,340	4,556
Other British			7,731	362	4,374	191
Cuba	242,409	11,627	250,288	10,567	980,071	59,846
Danish	174,189	6,164	184,210	7,690	103,129	4,377
Dutch	36,687	2,520	13,844	1,180	12,947	1,158
French	880	26				
Haiti	28,442	1,662	163,219	11,576	1,393,327	118,058
Santo Domingo	650,117	24,628	1,478,520	70,361	1,556,018	84,274
South America:						
Bolivia			458	48	270	23
Brazil	309,278	20,911	856,879	55,858	391,327	25,108
Chile	5,760	386				
Colombia	15,348	945	11,547	804	12,407	976
Ecuador	600	53	470	41	2,410	248
Guiana—						
British	9,770	475	94,666	3,923	217,798	9,967
Dutch	214,120	10,425	254,644	10,449	297,553	12,565
French	21,134	824	13,132	544	8,108	418
Peru	2,010	182	2,380	223	148	14
Venezuela	61,931	4,023	66,815	3,955	50,218	2,558
Asia:						
China	18,310	1,395	17,229	1,434	16,531	1,390
Chosen	688	64	1,403	138	563	57
East Indies—						
British—						
Straits Settlements			200	14	50	4
Other British	320	26	2,270	164		
French	6,112	440	1,750	132	1,654	141
Hongkong	76,300	5,147	81,990	4,963	78,135	4,917
Japan	3,340	249	3,035	275	2,660	263
Oceania:						
British—						
Australia	164,310	10,593	61,400	4,228	62,000	4,389
New Zealand	4,150	290	13,912	1,062	12,400	993
Other British	120	10	380	39	280	30
French	9,330	658	13,080	889	15,155	1,144
Germany	10,276	584	10,870	667	8,364	572
Philippine Islands	24,860	2,307	10,160	1,121	14,950	1,824
Africa:						
German Africa	12,320	290				
Liberia	17,956	786	21,928	1,014	13,128	541
Total	3,051,449	150,567	4,484,414	245,842	6,156,907	395,359

DRIED, SMOKED, OR CURED HERRINGS.

Europe:						
Germany	750	$30				
United Kingdom—						
England	150	5				
Scotland	2,740	70			11,980	$585
North America:						
Bermuda					3,750	138
British Honduras	1,888	67	5,165	$216	10,949	389
Canada	5,235	248	329,193	3,995	462,150	9,443

DRIED, SMOKED, OR CURED HERRINGS—Continued.

Countries of destination.	1910		1913		1914	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Central American States—						
Costa Rica	4,267	$170	3,179	$115	3,167	$116
Guatemala	560	20	2,932	347	7,823	263
Honduras	100	4	4,953	186	5,958	211
Nicaragua	575	19	1,738	66	1,759	58
Panama	31,965	1,098	37,722	1,315	55,242	2,255
Mexico	1,029	65	3,575	133	2,555	105
West Indies—						
British—						
Barbados	34,200	1,402	1,000	35	12,400	488
Jamaica			1,612	76	3,865	190
Trinidad and Tobago			29,080	1,262	24,329	993
Other British			8,332	387	7,920	319
Cuba	88,314	3,108	117,596	4,518	463,693	17,095
Danish	20,296	745	35,425	1,227	48,759	1,774
Dutch	17,716	688	28,578	1,142	44,342	1,689
French	6,600	246	114,690	4,356	215,731	7,090
Haiti	166,252	6,937	865,896	26,555	2,550,930	98,159
Santo Domingo	145,092	6,108	263,512	9,259	1,119,590	41,750
South America:						
Argentina					1,000	40
Brazil			56,200	2,711		
Chile			251	11		
Colombia	304	11	1,440	43	3,445	121
Guiana—						
British					20,525	810
Dutch	12,300	505	23,569	1,072	12,378	573
French	1,279	49	1,000	39		
Peru					60	2
Venezuela	13,466	500	16,211	844	3,745	151
Asia:						
China	200,000	2,000	3,482,891	38,258	631,300	6,312
Hongkong	338,100	3,390	3,664,110	37,148	3,352,205	36,567
Japan			5,437,810	73,494	1,398,600	13,980
Africa: British Africa—West	3,500	75				
French Africa	1,200	50				
Liberia	18,244	637	1,480	70	784	35
Total	1,116,122	28,247	14,539,140	208,880	10,480,334	241,701

ALL OTHER DRIED, SMOKED, OR CURED FISH.

Europe:						
France	22,201	$1,474				
Germany					450	$26
Roumania	1,400	125				
United Kingdom—England			9,412	$424	301	20
North America:						
Bermuda			240	16		
British Honduras	649	34	238	12	4,094	165
Canada	23,592	1,732	483,915	21,760	89,365	7,428
Central American States—						
Costa Rica			4,950	259	8,258	520
Guatemala	3,673	191	1,047	65	11,264	802
Honduras	42	2	825	57	2,236	94
Nicaragua	269	14	1,380	97	337	14
Panama	112	4	11,058	613	1,789	107
Mexico	16,981	1,330	47,418	4,154	14,974	1,283
Newfoundland and Labrador			1,150	65		
West Indies—						
British—						
Barbados	8,290	509				
Jamaica			136	19		
Trinidad and Tobago						
Other British					200	17
Cuba	23,092	723	3,900	156	258,543	7,455
Danish					47,928	2,140
Dutch	200	46				
French					975	34
Haiti	60,033	2,829				
Santo Domingo	60,801	2,833	58,259	2,217	48,900	1,883
South America:						
Brazil			785,967	50,445		
Chile	3,267	99				
Colombia	270	20	124	10		

ALL OTHER DRIED, SMOKED, OR CURED FISH—Continued.

Countries of destination.	1910		1913		1914	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
South America—Continued.						
Guiana—						
British					4,032	$323
Dutch	16,250	$1,622	36,118	$1,465		
French					10,500	483
Venezuela			9,376	422	400	19
Asia:						
China	3,500	350	176,300	4,456	9,500	1,491
Straits Settlements					50,000	843
Hongkong	1,500	150	3,328,185	154,968	3,381,379	145,536
Japan			1,717,390	30,744	100,500	6,675
Oceania:						
French			1,280	88	990	61
German			600	36		
Philippine Islands	160	14	210	26	3,500	250
Africa: Liberia			1,856	75		
Total	246,282	14,101	6,681,334	272,649	4,050,415	177,669

PICKLED FISH.

Europe:	*Barrels.*		*Barrels.*		*Barrels.*	
Denmark			1,492	$10,825	6,046	$44,260
Finland			690	7,185	450	4,665
France	3	$25			3	30
Germany					28	431
Netherlands			5	44		
Norway			590	5,275	605	6,250
Russia in Europe					762	6,170
Sweden			200	2,130	2,080	18,581
United Kingdom—						
England	6	46	61	358	250	1,635
Scotland	2	15			12	120
North America:						
Bermuda			5	41	30	164
British Honduras	3	37	24	179	64	436
Canada	104	1,014	71	976	515	4,599
Central American States—						
Costa Rica	73	799	172	2,109	192	1,882
Gautemala	13	158	29	231	55	428
Honduras	2	24	19	138	73	569
Nicaragua	7	84	15	115	20	139
Panama	147	1,291	75	848	84	960
Mexico	5	47	16	200	29	267
West Indies—						
British—						
Barbados	367	4,330	44	364	266	2,355
Jamaica			251	1,982	589	3,610
Trinidad and Tobago			54	617	188	2,206
Other British			131	1,022	100	840
Cuba	605	3,978	1,519	9,483	116	1,423
Danish	454	2,631	391	2,417	242	1,689
Dutch	55	582	93	924	33	206
French	5	36	30	219	12	100
Haiti	8,114	44,254	14,541	82,603	19,855	102,320
Santo Domingo	39	459	446	4,634	304	3,335
South America:						
Brazil	272	6,165			1,743	14,876
Chile					2	22
Colombia	8	93	25	247	10	99
Guiana—						
British	491	4,936	23	266	275	3,071
Dutch	364	3,144	886	7,247	825	6,749
French	3	35	9	106	26	245
Peru			1	18		
Venezuela	5	52	2	20	2	20
Asia:						
China			14	253		
Hongkong	100	1,805	21	420		
Oceania:						
British—						
New Zealand			3	34		
Other British			3	30		
French			1	12		
German			3	33	1	19
Philippine Islands	6	66				
Africa: Liberia			1	7		
Total	11,253	76,106	21,956	143,612	35,887	234,771

CANNED SALMON.

Countries of destination.	1910		1913		1914	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Europe:						
Azores, and Madeira Islands	100	$12				
Belgium			13,000	$940	45,590	$3,024
Denmark			186,996	17,485	75,693	6,110
Finland			2,400	250		
France	1,878	223	33,120	2,710	14,400	1,443
Germany	424	51	41,929	3,688	85,738	4,870
Gibraltar			2,400	250	5,100	541
Italy			720	75	6,720	644
Malta, Gozo, etc			9,600	732	2,400	300
Netherlands	9,744	1,020	9,456	1,005	11,000	1,100
Norway			250	26	3,300	320
Russia in Europe	11,580	1,210				
Spain	5,100	506	1,300	134	3,795	365
Sweden					7,200	700
Turkey in Europe					1,500	150
United Kingdom—						
England	44,737,072	4,709,160	25,076,343	2,674,626	62,318,612	5,982,247
Scotland			30,640	3,333	274,080	23,906
Ireland					7,200	450
North America:						
Bermuda	26,484	2,383	58,392	5,633	43,346	3,986
British Honduras	28,310	2,606	27,153	2,768	31,486	3,430
Canada	9,022	7,570	992,053	105,813	3,632,465	314,917
Central American States—						
Costa Rica	157,946	12,237	100,964	7,627	149,848	10,247
Guatemala	16,821	1,361	53,991	4,162	46,171	3,744
Honduras	16,240	1,361	34,213	3,146	57,387	5,821
Nicaragua	28,116	2,066	128,597	9,185	50,497	3,880
Panama	482,717	45,404	587,909	48,959	367,678	31,350
Salvador	5,498	423	17,136	1,373	13,806	1,000
Mexico	697,217	50,782	1,427,853	102,853	754,172	53,608
West Indies—						
British—						
Barbados	548,561	53,939	32,303	3,542	77,836	6,013
Jamaica			288,243	26,107	188,856	17,805
Trinidad and Tobago			169,123	17,743	175,590	16,171
Other British			51,239	5,865	73,274	7,158
Cuba	68,737	6,486	160,933	13,281	306,749	21,917
Danish	14,655	1,512	6,716	742	13,259	1,273
Dutch	9,838	1,160	27,464	2,811	34,511	3,181
French	196	18	270	28	894	95
Haiti	2,038	185	12,765	1,210	2,670	260
Santo Domingo	22,120	2,058	94,393	7,975	77,120	5,682
South America:						
Argentina	229,461	15,690	110,404	9,984	51,444	4,472
Bolivia	33,502	2,941	43,648	2,329	26,944	1,634
Brazil	267,354	28,241	219,492	22,820	80,129	7,211
Chile	1,556,629	92,259	2,318,720	143,574	2,123,237	134,678
Colombia	114,274	9,494	173,760	13,018	183,508	12,760
Ecuador	272,411	16,487	293,175	17,787	277,488	15,280
Guiana—						
British	222,398	22,133	214,349	22,438	132,455	13,444
Dutch	57,509	6,297	69,223	6,578	97,859	8,153
French	17,724	1,784	21,178	1,605	7,266	665
Peru	367,676	24,817	513,311	34,129	301,374	19,091
Uruguay	11,730	1,167	8,633	883	4,660	351
Venezuela	43,144	4,887	148,878	17,222	186,074	15,936
Asia:						
Aden			240	21	552	28
China	28,522	2,688	83,568	6,760	45,504	3,980
China, leased territory—						
British	3,120	345			1,920	200
Japanese			192	22		
Chosen	2,016	220	13,200	1,011	2,928	266
East Indies—						
British—						
British India	294,252	22,876	550,694	38,069	327,817	21,168
Straits Settlements	918,275	76,285	1,635,282	116,365	1,541,408	90,292
Other British	34,224	2,458	143,856	8,962	135,840	9,141
Dutch	189,604	15,920	356,448	31,084	331,776	22,408
French					624	43
Hongkong	121,558	12,234	767,810	49,360	480,036	32,109
Japan	3,716	352	2,256	289	2,614	274
Russia in Asia					144	13
Siam	1,008	93	39,360	2,208	480	60
Turkey in Asia			632	58	4,352	420
Other Asia	480	45				

CANNED SALMON—Continued.

Countries of destination.	1910		1913		1914	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Oceania:						
British—						
Australia	5,351,172	$538,854	6,331,184	$764,379	5,961,723	$666,703
New Zealand	123,646	12,458	194,836	20,377	95,136	9,289
Other British	66,826	5,160	53,006	4,036	73,984	5,168
French	241,200	22,589	335,800	34,790	389,424	37,218
German	360,576	22,554	381,744	27,560	534,484	33,247
Philippine Islands	5,425,404	396,604	10,122,820	590,128	5,034,252	266,369
Africa:						
British Africa—						
West	.....	.....	9,400	1,020	.....	.....
South	357,051	37,707	376,977	31,170	295,607	24,561
Egypt	1,440	120	20,936	1,808	15,024	1,059
German Africa	910	92	2,830	305	2,860	306
Italian Africa	.....	.....	.....	.....	2,400	230
Portuguese Africa	151,470	14,674	52,460	5,029	36,650	3,238
Spanish Africa	.....	.....	800	85	1,000	113
Total	63,860,696	6,314,258	55,290,966	5,103,340	87,750,920	7,999,293

ALL OTHER SALMON.

Countries of destination.	1910	1913	1914
Europe:			
Austria-Hungary	.....	.....	$75
Belgium	.....	$730	.....
Denmark	$83,580	53,494	84,727
Finland	.....	12,582	18,395
France	415	400	3,061
Germany	1,223,595	1,837,500	1,837,624
Netherlands	.....	2,100	7,550
Norway	45,885	23,516	38,886
Russia in Europe	5,260	.....	.....
Sweden	42,725	44,635	34,312
United Kingdom—England	66,555	69,152	49,869
North America:			
Bermuda	630	.....	324
British Honduras	.....	.....	276
Canada	23,559	31,562	82,712
Central American States—			
Costa Rica	197	227	127
Guatemala	62	7	18
Nicaragua	11	10	2
Panama	775	1,009	395
Salvador	.....	.....	23
Mexico	555	450	584
West Indies—			
British—			
Barbados	3,067	250	.....
Jamaica		3	41
Trin. and Tobago		45	253
Other British		.....	.....
Cuba	97	457	233
Danish	42	123	47
Dutch	78	.....	86
French	19	49	.....
Haiti	283	16	385
Santo Domingo	313	533	551
South America:			
Bolivia	.....	$30	.....
Brazil	$3,029	173	.....
Chile	.....	14	$258
Colombia	167	3,162	.....
Ecuador	.....	.....	109
Guiana—			
British	823	.....	470
Dutch	217	.....	78
French	695	16	.....
Peru	.....	14	.....
Venezuela	311	.....	18
Asia:			
China	89	39	122
Chosen	3	25	26
East Indies—			
British—British India	60	522	28
Dutch	41	.....	.....
Hongkong	10	779	1,960
Japan	90	33	292
Turkey in Asia	55	.....	.....
Oceania:			
British—			
Australia	21,913	17,972	26,559
New Zealand	913	2,795	364
Other British	89	49	74
French	1,886	1,222	1,425
German	1,189	1,727	727
Philippine Islands	2,089	1,934	2,181
Africa:			
British Africa—			
South	1,268	1,210	.....
Egypt	.....	.....	32
French Africa	.....	1,000	.....
Total	1,532,640	2,122,566	2,195,309

CANNED FISH, EXCEPT SALMON AND SHELLFISH.

Countries of destination.	1910	1913	1914
Europe:			
Austria-Hungary	$100	$25	$169
Azores, and Madeira Islands	.....	10	198
Belgium	.....	175	30
Denmark	.....	12,205	28
France	3,395	1,558	354
Germany	572	924	627
Italy	213	393	280
Netherlands	.....	10	32
Norway	20	400	630
Russia in Europe	.....	40	.....
Spain	3,100	.....	125
Sweden	320	.....	.....
Switzerland	.....	.....	185
United Kingdom—			
England	109,786	1,136	5,140
Scotland	417	700	182
North America:			
Bermuda	186	397	1,167
British Honduras	310	752	860
Canada	4,272	11,565	13,763
Central American States—			
Costa Rica	778	363	266
Guatemala	608	3,833	3,877
Honduras	175	4,019	3,859
Nicaragua	695	2,787	4,051
Panama	2,201	3,578	5,931
Salvador	236	633	185
Mexico	16,270	11,449	15,546
Newfoundland and Labrador	.....	6	.....
West Indies—			
British—			
Barbados	1,126	97	20
Jamaica		1,587	1,301
Trin. and Tobago		49	208
Other British		706	1,508
Cuba	3,063	9,251	5,581
Danish	376	261	169
Dutch	1,344	138	249
French	21	90	63
Haiti	551	585	754
Santo Domingo	2,002	6,028	7,271
South America:			
Argentina	688	940	1,539
Bolivia	1,148	537	59
Brazil	58,376	15,907	14,266
South America—Contd.			
Chile	$1,357	$1,627	$880
Colombia	1,217	2,261	2,274
Ecuador	342	1,003	1,599
Guiana—			
British	115	53	28
Dutch	608	274	147
French	446	717	.....
Paraguay	74	.....	.....
Peru	4,028	2,208	1,213
Uruguay	45	549	.....
Venezuela	800	1,775	1,409
Asia:			
Aden	.....	.....	30
China	764	1,481	1,861
Chosen	187	386	194
East Indies—			
British—			
British India	916	374	671
Straits Settlem'ts	110	30	104
Other British	10	7	.....
Dutch	196	162	.....
French	43	30	41
Hongkong	162	256	490
Japan	218	301	226
Russia in Asia	232	9	18
Siam	4	.....	19
Turkey in Asia	.....	.....	18
Oceania:			
British—			
Australia	229	390	1,499
New Zealand	13	310	608
Other British	8	122	93
French	182	1,187	1,452
German	194	756	395
Philippine Islands	11,946	8,766	12,672
Africa:			
British Africa—			
West	681	6	27
South	2,101	1,071	37
Canary Islands	62	.....	187
Egypt	.....	.....	14
French Africa	255	.....	27
German Africa	.....	6	22
Liberia	69	9	8
Portuguese Africa	390	.....	45
Spanish Africa	33	.....	25
Total	240,389	119,260	118,836

OYSTERS.

Europe:			
Belgium	$10	$22	$12
Denmark	36	.....	.....
France	142	40	88
Germany	579	1,539	1,532
Italy	35	.....	123
Netherlands	.....	25	.....
Norway	12	12	36
Spain	136	41	734
Switzerland	10	.....	4
United Kingdom—			
England	163,495	156,315	159,171
Scotland	489	900	1,804
Ireland	29	8	14
North America:			
Bermuda	1,550	519	1,112
British Honduras	572	542	635
Canada	285,599	340,458	340,719
Central American States—			
Costa Rica	2,817	1,513	3,872
Guatemala	1,121	939	1,617
Honduras	343	1,104	1,459
Nicaragua	998	3,780	1,711
Panama	5,784	5,161	4,768
Salvador	359	499	644
North America—Contd.			
Mexico	$22,227	$21,774	$11,182
Miquelon, Langley, etc	19	66	85
Newfoundland and Labrador	62	88	85
West Indies—			
British—			
Barbados	1,188	48	32
Jamaica		703	611
Trin. and Tobago		491	546
Other British		139	384
Cuba	4,565	6,973	8,796
Danish	78	92	104
Dutch	230	384	553
French	.....	.....	16
Haiti	117	188	94
Santo Domingo	116	193	139
South America:			
Argentina	46,455	25,283	52,399
Bolivia	785	1,666	1,342
Brazil	1,478	526	166
Chile	936	1,407	1,238
Colombia	365	764	518
Ecuador	699	761	1,178

OYSTERS—Continued.

Countries of destination.	1910	1913	1914
South America—Contd.			
Guiana—			
British	$259	$236	$294
Dutch	60	52	27
French	58	.....	.....
Peru	2,015	1,806	1,435
Uruguay	2,793	3,581	2,132
Venezuela	2,188	3,261	1,604
Asia:			
China	73	744	1,576
China, leased territory—			
Japanese	.....	9	.....
Chosen	24	114	61
East Indies—			
British—			
British India	87	99	98
Straits Settlements	.....	74	42
Dutch	36	.....	19
Hongkong	348	122	66
Asia—Continued.			
Japan	.....	$218	$24
Siam	$5	14	.....
Oceania:			
British—			
Australia	27,801	36,156	52,150
New Zealand	487	1,213	956
Other British	33	161	107
French	180	105	263
German	56	34	103
Philippine Islands	11,188	6,365	4,206
Africa:			
British Africa—			
West	23	.....	.....
South	1,969	3,831	1,569
French Africa	17	.....	.....
Liberia	23	.....	.....
Portuguese Africa	907	171	174
Total	594,066	633,332	666,432

ALL OTHER SHELLFISH.

Europe:			
Azores, and Madeira Islands	$1,240	$379	$2,332
Belgium	2,944	835	1,420
France	4,751	442	225
Germany	346	11	899
Greece	50	.....	.....
Italy	271	338	.....
Norway	.....	570	.....
Portugal	11,576	13,955	17,382
Spain	4,478	6,468	5,771
Sweden	.....	100	40
United Kingdom—			
England	15,686	52,682	10,553
Scotland	425	75	163
North America:			
Bermuda	374	177	615
British Honduras	756	679	936
Canada	30,539	36,726	47,544
Central American States—			
Costa Rica	5,135	2,635	5,616
Guatemala	440	819	1,733
Honduras	570	1,292	2,569
Nicaragua	1,102	3,685	1,878
Panama	21,755	19,161	24,850
Salvador	158	235	378
Mexico	17,100	28,547	8,838
Miquelon, Langley, etc	.....	6,986	.....
Newfoundland and Labrador	.....	134	47
West Indies—			
British—			
Barbados	2,373	102	153
Jamaica		630	774
Trin. and Tobago		1,034	1,741
Other British		87	650
Cuba	15,211	23,550	41,414
Danish	344	29	68
Dutch	332	19	16
Haiti	81	1,535	7
Santo Domingo	378	780	525
South America:			
Argentina	$49,062	$64,848	$18,480
Bolivia	1,440	1,652	1,055
Brazil	60,011	91,417	43,596
Chile	10,512	10,521	12,507
Colombia	2,192	2,677	3,177
Ecuador	3,690	4,786	4,793
Guiana—			
British	7,708	8,981	8,425
Dutch	1,951	5,737	5,689
French	2,720	869	503
Peru	13,320	15,339	6,622
Uruguay	15,692	13,764	17,319
Venezuela	1,333	3,025	3,414
Asia:			
China	289	544	1,515
Chosen	48	117	30
East Indies—			
British—			
British India	283	520	506
Straits Settlements	.....	6	38
Dutch	.....	.....	151
French	36	.....	.....
Hongkong	13,046	19,831	6,225
Japan	565	1,766	775
Russia in Asia	.....	.....	32
Siam	1	.....	.....
Oceania:			
British—			
Australia	6,795	6,552	3,896
New Zealand	1,914	1,464	23
Other British	132	401	545
French	250	1,784	1,083
German	205	357	295
Philippine Islands	8,383	4,131	1,759
Africa:			
British Africa—			
West	34	.....	.....
South	884	1,546	1,791
Egypt	.....	226	.....
Portuguese Africa	374	277	47
Total	341,285	467,835	323,428

ALL OTHER FISH AND FISH PRODUCTS.

Europe:			
Austria-Hungary	.....	.....	$150
Belgium	$2	.....	66
Denmark	12,178	$8,070	2,070
France	21,226	3,847	3,233
Germany	559	2,992	3,896
Italy	.....	.....	850
Netherlands	100	10	.....
Norway	.....	.....	1,980
Europe—Continued.			
Spain	.....	.....	$440
United Kingdom—			
England	$1,389	$3,829	2,553
Scotland	.....	.....	12
North America:			
Bermuda	555	924	667
British Honduras	686	371	1,055
Canada	35,601	42,464	61,624

ALL OTHER FISH AND FISH PRODUCTS—Continued.

Countries of destination.	1910	1913	1914
North America—Contd.			
Central American States—			
Costa Rica	$1,296	$212	$34
Guatemala	1,768	1,573	605
Honduras	659	306	575
Nicaragua	2,296	847	441
Panama	3,359	4,131	1,413
Salvador	305	223	232
Mexico	4,278	4,097	1,144
Miquelon, Langley, etc	.....	.....	24,056
Newfoundland and Labrador	.....	2	.....
West Indies—			
British—			
Barbados	246	11	233
Jamaica		366	645
Trin. and Tobago		34	268
Other British		560	1,010
Cuba	2,090	134	1,392
Danish	365	40	360
Dutch	11	2,153	394
Haiti	2,575	8,720	687
Santo Domingo	2,832	985	1,225
South America:			
Argentina	10	.....	.....
Brazil	880	4,621	58
Chile	9	.....	.....
Colombia	494	231	57
Ecuador	.....	60	94
Guiana—			
British	550	280	.....
Dutch	123	2,084	2,587
French	46	.....	.....
South America—Contd.			
Peru	$1,613	$361	$543
Uruguay	839	1,235	287
Venezuela	174	1,845	2,069
Asia:			
China	883	490	677
Chosen	17	.....	.....
East Indies—			
British—British India	.....	126	.....
French	10	70	.....
Hongkong	42,856	3,448	2,025
Japan	786	281	239
Oceania:			
British—			
Australia	491	234	.....
New Zealand	.....	10	30
Other British	21	3	.....
French	560	248	264
German	121	189	16
Philippine Islands	1,612	393	107
Africa:			
British Africa—			
West	.....	.....	15
South	.....	50	23
East	.....	.....	10
Canary Island	.....	.....	93
Egypt	.....	124	.....
French Africa	10	.....	.....
German Africa	28	.....	.....
Portuguese Africa	50	.....	.....
Total	146,559	103,284	122,504

UNITED KINGDOM.

As a source of the nation's food supply the fisheries of Great Britain are second only in importance to agriculture. The British Isles are in the midst of fishing grounds of exceptional richness, and large numbers of the people are attracted to this means of earning a livelihood. Statistics show that some 25,000 boats are engaged in British fisheries and employ crews of over 100,000 men and boys. A corresponding number of persons are engaged on shore in cleaning, curing, packing, and selling the fish.

The following table shows provisional figures for the quantity (in hundredweights of 112 pounds) and value of the fish landed on the English and Welsh, Scotch, and Irish coasts during the years 1913 and 1914:

Items.	1913		1914	
	Hundredweight.	Value.	Hundredweight.	Value.
England and Wales:				
Fish, excluding shellfish	16,152,374	$48,710,385	10,124,948	$38,183,192
Shellfish	.....	1,593,112	.....	1,406,000
Total	.....	50,303,497	.....	39,589,192
Scotland:				
Fish, excluding shellfish	7,259,883	18,119,717	6,897,699	14,459,423
Shellfish	.....	350,218	.....	316,449
Total	.....	18,469,935	.....	14,775,872
Ireland:				
Fish, excluding shellfish	636,807	1,367,219	549,597	1,092,038
Shellfish	.....	140,262	.....	95,077
Total	.....	1,507,481	.....	1,187,115
Grand total	.....	70,280,913	.....	55,552,179

If the catch for 1913 is taken at 24,000,000 hundredweight of 112 pounds, valued at $68,000,000, the imports at 3,600,000 hundredweight, valued at $23,000,000, and the exports at 11,000,000 hundredweight, valued at $36,000,000, the total consumption for the year may be placed at 16,600,000 hundredweight, valued at $55,000,000. The per capita consumption for the United Kingdom works out at about 41 pounds a year, using the 1913 statistics as a basis, and omitting the shellfish entirely. This figure will illustrate the tremendous importance of sea food in the British Isles.

Of the fish taken at the English and Welsh fisheries, the catch of herrings is the most important, the total in 1913 being 7,313,425 hundredweight. In 1914 there was a remarkable falling off in the catch of this fish, the final figure being only 2,016,899 hundredweight. Following the herrings in 1913 came the cod with 2,646,666 hundredweight, the haddock with 1,553,869 hundredweight, and the plaice with 699,298 hundredweight. Other important catches were hake, whiting, coalfish, skates and rays, and mackerel. The only catch seriously affected by the war in 1914 seems to have been herrings. The catch of sea fish in the Scotch fisheries in 1913 totaled 7,259,883 hundredweight, the poorest since 1909, although record prices were received. The herring catch was the most important and amounted to 4,449,323 hundredweight. Ninety-five per cent of the Scotch herrings are preserved in some manner. Of the Irish catch of 636,807 hundredweight, over 470,000 hundredweight were herrings and some 290,000 hundredweight mackerel.

FOREIGN TRADE IN FISH.

Great Britain's exports of herrings are very important and Germany has been the most important customer. In 1913 the exports of fresh herrings amounted to 1,166,598 hundredweight, of which Germany took no less than 1,111,548 hundredweight. For the same year the exports of herrings preserved by curing, salting, etc., totaled 8,795,232 hundredweight, of which 3,996,892 hundredweight went to Germany, 3,566,155 to Russia, and 398,810 to the United States. Preserved pilchards were exported to the extent of 37,101 hundredweight, Italy taking 32,850 hundredweight. The exports of preserved cod amounted to 441,983 hundredweight, Spain being the principal purchaser with a total of 183,296 hundredweight. Other important buyers of this product were Cuba, Brazil, Italy, and Portugal, in the order named. The United States is the principal purchaser of preserved mackerel, taking 88,913 hundredweight out of a total export of 98,370 hundredweight.

The imports of fish into the United Kingdom, while not so important as the exports, amount to nearly $25,000,000 a year. The table following shows in detail the exports of the various fish by countries of destination (hundredweight = 112 pounds; £ = $4.8665).

Articles, and countries of origin.	Hundredweight.	Value.
Fresh fish (not of British taking):		
Herrings—		
Sweden	107,606	$£29,780
Norway	1,054,541	250,228
Other foreign countries	925	394
British possessions	73,356	56,300
Total	1,236,428	336,702
Unenumerated—		
Russia	3,779	10,581
Norway	34,799	60,249
Denmark (including Faroe)	94,881	191,274
Germany	59	168
Netherlands	38,942	74,596
Belgium	8,902	19,222
France	2,433	10,870
United States	150	50
Other foreign countries	10,432	6,082
British possessions—		
Canada	6,710	24,634
Deep-sea fisheries	666,334	267,312
Other British possessions	84	261
Total	867,505	665,299
Shellfish:		
Oysters for food—		
Netherlands	11,032	46,896
United States	56,428	38,957
Other foreign countries	2,298	2,619
British possessions	22	14
Total	69,780	88,486
Oysters for breeding purposes—		
France		4,254
United States		1,413
Other foreign countries		35
Total		5,702
Unenumerated—		
Norway	5,290	10,797
Netherlands	133,472	50,635
Other foreign countries	2,872	9,398
British possessions—		
British West Indies	779	4,022
Other British	844	3,832
Total	143,257	78,684
Cured or salted fish:		
Canned sardines—		
Norway	127,036	415,376
Germany	892	2,927
Belgium	403	937
France	20,109	93,841
Portugal	133,249	363,884
Spain	11,149	28,797
Other foreign countries	672	1,771
British possessions	1,710	4,591
Total	295,220	912,124
Cured or salted fish—Contd.		
Canned salmon—		
Russia	27,142	$74,561
Japan	28,925	81,289
United States	265,817	698,018
Other foreign countries	2,798	9,739
British possessions—		
Canada	275,362	900,068
Newfoundland and Labrador	298	575
Other British	218	687
Total	600,560	1,764,937
Canned lobsters—		
France	12	106
United States	545	5,372
Other foreign countries	169	1,230
British possessions—		
Canada	33,139	308,951
Newfoundland and Labrador	1,361	15,707
Other British	1	45
Total	35,230	331,411
Canned, unenumerated—		
Norway	33,156	76,504
Germany	384	1,884
France	3,331	11,589
Spain	2,201	4,147
Italy	2,539	6,891
Japan (including Taiwan and leased Chinese territory)	2,546	15,643
United States	2,963	9,530
Other foreign countries	3,138	7,041
British possessions—		
Cape of Good Hope	17,627	66,292
Other British	2,349	10,713
Total	70,234	213,234
Not canned, all sorts—		
Norway	165,617	243,509
Denmark (including Faroe)	28,195	34,553
Iceland and Greenland	100,755	108,223
Germany	1,540	2,663
Netherlands	2,574	2,445
France	1,243	3,815
Italy	6,258	22,239
United States	3,400	8,875
Other foreign countries	16,709	10,399
British possessions—		
Canada	13,081	15,853
Newfoundland and Labrador	31,208	36,270
Other British	175	1,504
Total	370,755	490,348
Total value of fish imported:		
From foreign countries		3,169,296
From British possessions		1,717,631
Total		4,886,927

DEMAND FOR CANNED SALMON.

[From Vice Consul Arthur V. Blackmore, Birmingham, England.]

Originally Columbia River salmon had the largest sale in this country, but the color was too pale for the trade and the consumer was encouraged to take red fish; consequently Alaska and Fraser River fish have become more popular. Sockeye and Chinook are now the favorite salmon. Owing, however, to the high prices asked for these fish, pale-pink salmon are again being introduced, and there is a growing demand for an article that can be sold for 11 to

12 cents per pound tin. There seems to be an opinion in some quarters that not all the goods sold as salmon are really salmon.

The bulk of the imported salmon comes by water from Pacific coast ports. The goods are sold by the importer to the wholesaler, who in turn sells to the retailer. The consumers are found principally among the working classes. There is a very large market for good red fish, and the demand is steadily increasing.

GERMANY.

During the last few years the fishing industry of Germany has been placed on a sounder commercial basis than had formerly existed. This improvement has resulted chiefly from the increased use of steam fishing vessels and from the cooperation and encouragement offered by the German Government and the German Sea Fishery Association.

State aid to the fishing industry takes many forms, such as pecuniary assistance and subventions and reduced rates for inland rail transportation of fresh fish. The Government has also devoted large sums to building fish harbors at Geestemunde, Emden, Cuxhaven, Altona, and other ports. Geestemunde is the principal fishing port and market in Germany.

Of late years there has been an exceptional demand in Germany for all kinds of sea fish, and this has greatly increased prices. In many of the interior cities sea fish, and the best methods of cooking them, were practically unknown until recently, when the Government and the Sea Fishery Association undertook a campaign to extend the consumption. The latter organization started a series of cookery lessons in Berlin and other large cities, using moving pictures to show the methods of fishing and the varieties of fish and to aid in explaining their food value. As a consequence the taste for fish spread amazingly and the various trawling concerns entered upon an era that seemed likely to be permanent.

German vessels by no means furnish the entire supply of sea fish for this country. Denmark each year exports some 300,000 hundredweight of fish to Germany and is one of the chief purveyors to the Berlin market. A considerable number of English ships land consignments of fish at Geestemunde. The catch of herrings each year, in spite of the shipments continually coming into the country, seems to be insufficient to meet the demand.

The German catch in the North Sea for 1912 and 1913 is shown in the following table in kilos of 2.2046 pounds and marks of 23.8 cents:

Fish.	1912		1913	
	Kilos.	Marks.	Kilos.	Marks.
Herrings	1,562,400	306,500	3,964,800	822,100
Cod	31,412,700	5,541,000	29,870,700	5,782,100
Codfish and pollack,	6,696,000	977,700	9,670,800	1,325,200
Flatfish	2,078,500	1,158,400	1,837,900	1,072,800
Shellfish	26,668,300	7,282,100	22,022,700	6,337,000
Plaice	3,334,900	1,374,500	3,612,900	1,374,500
Turbot	332,700	571,700	449,100	732,200
Whiting	4,761,000	787,200	5,176,300	988,400
All other	10,297,500	3,242,600	10,708,400	3,422,900
Total	87,144,000	21,241,700	87,313,600	21,857,200

The German fisheries in the Baltic yield about half the total that is taken in the North Sea, the principal varieties caught being eels, flounders, perch, herrings, sprats, and bleak fish, in the order named. There are also important river and lake fisheries, the Rhine salmon being one of the best known products.

IMPORTS AND EXPORTS.

The imports of fish and fish products necessary to supply the demand in Germany are important, as is shown by the accompanying table in kilos of 2.2046 pounds and marks of 23.8 cents:

Articles and countries of origin.	Kilos.	Marks.
Fresh fish:		
Carp—		
France	270,500	284,000
Netherlands	28,500	31,000
Austria-Hungary	1,036,000	1,295,000
Russia	39,800	40,000
Sweden	41,800	50,000
Other countries	39,100	46,000
Total	1,455,700	1,746,000
Eels, tench, etc.—		
Denmark	1,262,500	2,320,000
France	28,200	25,000
United Kingdom	107,400	419,000
Italy	57,800	81,000
Netherlands	1,799,300	2,782,000
Norway	246,000	520,000
Austria-Hungary	486,200	700,000
Russia	2,034,800	2,525,000
Sweden	299,700	362,000
Switzerland	108,200	163,000
Egypt	83,700	84,000
United States	971,900	1,283,000
Other countries	64,400	73,000
Total	7,550,100	11,337,000
Herrings and sprats—		
Belgium	797,700	104,000
Denmark	14,486,100	2,897,000
United Kingdom	42,470,500	9,344,000
Netherlands	1,262,800	164,000
Norway	30,195,500	4,227,000
Sweden	43,931,100	6,590,000
Other countries	10,600	1,000
Total	133,154,300	23,327,000
Haddock, plaice, sole, etc.—		
Belgium	1,296,500	1,400,000
Denmark	16,566,100	8,449,000
France	175,000	445,000
United Kingdom	4,082,800	3,838,000
Italy	81,400	118,000
Netherlands	13,027,800	5,863,000
Norway	3,937,100	1,575,000
Russia	72,100	54,000
Sweden	1,495,500	942,000
Other countries	78,000	80,000
Total	40,842,300	22,764,000
Preserved fish:		
Herrings not cut open, herring milt, and herring pickle—		
Denmark	[a] 2,113	55,000
United Kingdom	[a] 633,871	25,355,000
Preserved fish—Contd.		
Herrings not cut open, herring milt, and herring pickle—Con.		
Netherlands	[a] 400,038	11,001,000
Norway	[a] 160,729	4,340,000
Sweden	[a] 6,045	121,000
Other countries	[a] 2,157	66,000
Total	[a] 1,204,953	43,938,000
Herrings otherwise packed—		
Netherlands	215,600	97,000
Other countries	201,700	86,000
Total	417,300	183,000
Salmon, simply prepared and salted—		
Denmark	233,700	386,000
Russia	42,500	70,000
United States	4,295,900	7,088,000
Other countries	36,000	59,000
Total	4,608,100	7,603,000
Sardines, simply prepared—		
France	112,600	79,000
Netherlands	3,243,800	2,919,000
Other countries	110,000	77,000
Total	3,466,400	3,075,000
Cod and other stockfish—		
Denmark	180,900	101,000
Netherlands	86,600	48,000
Norway	897,300	502,000
Other countries	16,500	11,000
Total	1,181,300	662,000
Eels, herrings, sprats, simply prepared; fish paste; fish sausage; roe; and high-grade fish preparations—		
Belgium	142,900	50,000
Denmark	1,641,100	457,000
France	63,000	32,000
Italy	192,800	293,000
Netherlands	1,416,500	1,133,000
Norway	787,700	526,000
Other countries	76,400	40,000
Total	4,320,400	2,531,000

[a] Barrels.

Articles and countries of origin.	Kilos.	Marks.
Preserved fish—Contd.		
Caviar and substitutes—		
Russia	373,300	9,333,000
Other countries	1,700	18,000
Total	375,000	9,351,000
Shellfish and crustaceans:		
Oysters—		
Belgium	120,300	253,000
United Kingdom	56,600	113,000
Netherlands	866,500	823,000
Other countries	29,800	15,000
Total	1,073,200	1,204,000
Mussels—		
Netherlands	1,924,500	231,000
Other countries	238,300	29,000
Total	2,162,800	260,000
Shellfish and crustaceans—Continued.		
Crawfish, fresh-water crabs, and prepared crab meat—		
Austria-Hungary	152,000	236,000
Russia	639,200	991,000
Other countries	6,100	9,000
Total	797,300	1,236,000
Lobster, fresh and canned—		
Denmark	272,100	1,279,000
France	100,200	471,000
United Kingdom	24,200	92,000
Norway	268,200	1,261,000
British N. America	584,400	2,070,000
United States	35,700	128,000
Other countries	32,700	140,000
Total	1,317,500	5,441,000

As might be expected, German fish exports are not of very great importance, although there are good markets for fresh sweet-water fish in Russia and for fresh herrings in Austria-Hungary. The total exports of fresh fish of all kinds in 1912 were 17,456,700 kilos, of which a little more than half was made up of herrings. There is a steady demand in some countries for certain fish and fish products prepared in the German manner, but on the whole the exports of prepared fish are not of great importance comparatively.

POPULARITY OF SALTED HERRINGS.

The German trade demands three classes of salted herrings, each of which has its season. During May and June there is an extensive sale in the North Sea coast region, as well as in the Netherlands, of Matjes herrings—that is to say, drawn fish lightly salted and of the first quality. It is not considered possible to import herrings of this class from remote fishing countries. Matjes herrings of the first quality come in barrels containing 125 pieces, of a gross weight of 330 pounds, and they command as much as $30 per barrel. A second quality comes in barrels containing from 800 to 850 pieces, worth about $9.50 per barrel. These fish are sold in all first-class shops and are a much esteemed table delicacy during a few months of the year. Toward the end of June and throughout July full herrings enter the market. These are hard salted and are worth $7.15 to $9.50 per barrel. In August and September still another grade of hard salted full herrings arrives, worth $11.50 per barrel. The full salted herrings are consumed without cooking in the industrial centers of interior Germany by the poorer classes, who eat the entire fish except the bones.

As the herring shoals frequent the British coast within the 3-mile limit, the trade is dominated by the Scotch packers, who find in this country one of their best markets, Hamburg being the center.

THE MARKET FOR SALMON.

[Consul General Robert P. Skinner, Hamburg.]

The consumption of both fresh and smoked salmon is very great in Germany. Salmon were once plentiful and cheap, but at present the river traffic is so heavy that there are no longer any packs and only a few of the fish are caught in local waters. Nevertheless the demand for salmon remains, although the trade in the canned article is comparatively small and unimportant.

Before the present high duty of 60 marks per 100 kilos ($6.48 per 100 pounds) was placed on canned salmon, one firm alone imported as many as 30,000 tins a year. The domestic trade is now limited to north Germany. Although the German demand for canned salmon is not great, the importation at Hamburg is very large, as purchases are made for reexportation to German colonies in Africa and to other tropical and foreign countries generally. Perhaps this trade could be increased, particularly if exporters visited Hamburg personally and concluded arrangements with capable agents.

For the German domestic trade only red salmon in tall, flat, and oval tins is imported. For export the cheap pale and pink grades are required. Shipments are made directly to Hamburg from Pacific ports, Seattle and Vancouver furnishing the principal stocks in perhaps equal proportions. Lately considerable quantities are coming from Kamchatka. There is no complaint on the part of importers in regard to packing methods, nor does the article come into conflict with the food laws.

The greatest salmon trade of Germany falls under the head of frozen fish. These fish are usually smoked in this country and are seen for sale in every fish and provision shop in the Empire. It is doubtful if an equally general demand for smoked salmon can be found in any other part of the world, unless perhaps in Russia and Scandinavia. The latter, however, are producing countries. No duty is imposed upon fresh salmon imported into Germany. Fresh salmon are packed in cases of 200 German pounds (100 kilos, or 220 pounds), each fish being wrapped in parchment paper and all packed closely together. Cases are shipped in refrigerator ships, no ice coming into direct contact with the fish itself. These chilled fish are sold at auction in the Hamburg market and command from 9½ to 21 cents per pound, according to grade. The best grade, known as the "steelhead," commands from 19 to 21 cents per pound.

Salmon intended to be smoked in Germany come packed in brine of not more than 12 to 14 per cent of salt. When the fish are packed in brine of more than 16 per cent salt they can not be smoked, as the salt can not be extracted and the fish tears and crumbles on being sliced. Fish shipped in this manner are dutiable at the rate of 71 cents per 100 kilos (220 pounds).

Smoked salmon in tubs of 200 to 300 pounds is also dutiable at the rate of 71 cents per 100 kilos. Importations of this class of fish are limited, and the quantity is not even mentioned separately in German statistics. Some cities in southern Germany consume from 30,000 to 40,000 pounds of smoked salmon monthly. The most highly esteemed fish is taken from the Rhine, but the probabilities are that the ordinary purchaser seldom concerns himself with the question of origin and takes what his fish dealer has to offer. It

is the custom of the trade to contract for deliveries of chilled salmon at stated periods of so many hundred pounds per month. In 1910 a vessel arrived from Alaska with 3,000 tons on board, but the consignment was commercially a failure because it overstocked the market, and the surplus was disposed of at a loss in Germany, Belgium, Antwerp, and London.

FRANCE.

The French fisheries are a very important asset of the country, the total catch for 1910, the last year for which statistics are available, being valued at $27,075,625, an increase of about $800,000 over the previous year. Nearly 150,000 men are employed in the industry.

The catch of cod by French boats at the Newfoundland fisheries is perhaps the most valuable single item in the list of French fishery products, being valued at more than $5,500,000 in 1910. Sardines, mackerel, tunny, and herrings are the other more valuable food fishes taken by the French fishermen.

The sardine industry has been much disturbed for the last few years, and as a result of small catches, troubles between the fishermen and packers, and the competition from Norwegian and Spanish packers the outlook can not be said to be very bright. Canned sardines are consumed in great quantities by the French and are also largely exported, as the excellent quality of the French product is known in all countries.

EXPORTS AND IMPORTS.

The exports of all fish except shellfish and crustaceans in 1912 were valued at $5,717,000, the most important items being dried, salted, and smoked cod, $2,165,000, and sardines, preserved, marinated, or otherwise prepared, $1,649,000. Italy is the principal purchaser of cod, while the United States, Great Britain, and Germany take the largest quantities of sardines, although Denmark, Belgium, and Russia follow rather closely in this respect.

The imports by countries in 1912 are shown in the table that follows (franc = 19.3 cents; metric quintal = 220.46 pounds):

Articles and countries of origin.	Metric quintals.	Francs.
Fresh fish from fresh water:		
Salmon family—		
United Kingdom	6,471	.....
Germany	1,030	.....
Netherlands	7,229	.....
Switzerland	600	.....
Canada	337	.....
Other foreign countries	160	.....
Free zone	150	.....
Total	15,977	5,272,410
Other—		
Germany	4,057	.....
Netherlands	9,104	.....
Belgium	280	.....
Switzerland	988	.....
Spain	196	.....
Italy	1,305	.....
Other foreign countries	179	.....
Free zone	1,149	.....
Total	17,258	1,380,640
Fresh fish from salt water:		
United Kingdom	14,919	.....
Netherlands	2,591	.....
Belgium	4,374	.....
Spain	8,889	.....
Other foreign countries	230	.....
Algeria	1,077	.....
Tunis	57	
Total	36,037	3,391,078
Dried, salted, and smoked fish:		
Codfish, including clip-fish—		
Norway	186	.....
United Kingdom	21	.....
Germany	198	.....
Other foreign countries	67	.....
Algeria	107	.....
St. Pierre fisheries	428,250	.....
Total	429,129	34,321,760

Articles and countries of origin.	Metric quintals.	Francs.
Dried, salted, and smoked fish—Continued.		
Stockfish—		
Norway	2,676	.....
United Kingdom	524	.....
Netherlands	1,173	.....
Other foreign countries	129	.....
Total	4,502	360,160
Herrings—		
Norway	3,713	.....
United Kingdom	1,225	.....
Belgium	12,744	.....
Other foreign countries	806	.....
St. Pierre fisheries	231	.....
Total	18,719	336,942
All other—		
United Kingdom	1,745	.....
Germany	261	.....
Belgium	298	.....
Portugal	3,359	.....
Spain	17,362	.....
Other foreign countries	212	.....
Algeria	10,106	.....
St. Pierre fisheries	9,701	.....
Total	43,044	3,228,300
Fish, preserved, marinated, or otherwise prepared:		
Sardines—		
United Kingdom	41	.....
Portugal	36,215	.....
Spain	57,864	.....
Morocco	660	.....
Other foreign countries	618	.....
Algeria	10,063	.....
Total	105,461	13,709,930
Other—		
Norway	3,269	.....
United Kingdom	2,811	.....
Germany	814	.....
Netherlands	824	.....
Portugal	772	.....
Spain	915	.....
Italy	1,137	.....
Japan	3,025	.....
Canada	2,440	.....
Other foreign countries	572	.....
French possessions	660	.....
Total	17,239	3,620,190

Articles and countries of origin.	Metric quintals.	Francs.
Oysters:		
Fresh seed—		
United Kingdom	595	.....
Netherlands	55	.....
Total	650	650,000
Other fresh—	*Number.*	
United Kingdom	29,240,000	.....
Netherlands	5,567,000	.....
Belgium	2,411,000	.....
Other foreign countries	17,000	.....
Total	37,235,000	1,117,050
	Metric tons.	
Preserved—		
Foreign countrie	11	2,200
Lobsters:		
Fresh—		
United Kingdom	1,676	.....
Netherlands	4,220	.....
Belgium	9,456	.....
Portugal	1,016	.....
Spain	1,912	.....
Italy	3,217	.....
Other countries	1	.....
Tunis	25	.....
Total	21,523	5,811,210
Preserved—		
United Kingdom	7,384	.....
Japan	747	.....
Canada	15,628	.....
Other foreign countries	174	.....
Total	23,933	5,504,590
Shellfish other than oysters:		
United Kingdom	512	.....
Netherlands	101,103	.....
Belgium	34,998	.....
Other foreign countries	473	.....
St. Pierre fisheries	278	.....
Total	137,664	1,101,312
Hard roe, cod and mackerel:		
Norway	38,346	.....
United Kingdom	4,438	.....
Germany	6,263	.....
Belgium	1,262	.....
United States	1,060	.....
Other foreign countries	659	.....
St. Pierre fisheries	6,830	.....
Total	58,858	1,294,876
Grand total	.....	$1,102,648

RUSSIA.

Although Russia is one of the greatest sea-food producing countries in the world, its supply falls short of meeting the requirements of the population. The annual imports of fish to meet the deficiency of the home fisheries range in value between $15,000,000 and $20,000,000. The domestic production of late years has exceeded 1,500,000 pounds in weight and $50,000,000 in value, while the exports of fish and caviar are valued at something more than $3,000,000. The per capita consumption works out at about 12 pounds a year.

The table that follows will give an idea of the location of the Russian fisheries, although the figures are for 1911 and the production

has increased considerably since that year. Later statistics are not available for all the districts. (Pood = 36.1128 pounds; ruble = 51.5 cents.)

Regions.	Quantity.	Value.	Persons engaged.
	Poods.	*Rubles.*	
Caspian	23,167,000	66,367,000	172,000
Upper Volga	2,916,000	2,280,000	10,000
Black Sea	4,182,000	6,262,000	35,000
Baltic Sea	2,697,000	5,394,000	21,000
Lakes region	1,809,000	2,928,000	11,000
Mourman—White Sea	900,000	2,000,000	14,000
Total European Russia	35,671,000	85,231,000	263,000
Ob Basin	753,000	2,379,000	4,300
Lower Yenisei	162,000	486,000	900
Baikal	280,000	788,000	2,500
Yakutsk Oblast	57,000	71,000	500
Far Eastern region	4,500,000	4,200,000	[a] 8,000
Turkestan	2,500,000	4,000,000	17,000
Total Asiatic Russia	8,252,000	11,924,000	33,200
Grand total	43,923,000	97,155,000	296,200

[a] This figure is for Russian subjects, in addition to which there were about 10,000 Japanese.

The distribution of the various fish is as follows: Sturgeon and carp in the Caspian, Aral, and Black Seas; salmon in northern parts of European and Asiatic Russia, in lakes Ladoga, Onega, and Baikal in the Far East, and in the Black and Caspian Seas; herrings in the Black and Caspian Seas; cod, flounders, and some herrings in the Baltic and White Seas and Arctic Ocean; mackerel, mullet, sardels, anchovies, barbel, and chub in the Black Sea. Oysters are confined exclusively to the Black Sea, and sea cole and trepang to the waters of the Far East.

STATISTICS OF FOREIGN TRADE.

The exports of fish and fish products from European Russia in 1913 were valued at $3,781,000, as compared with $3,123,000 for the year previous. Of the total, caviar made up more than half, being valued at $2,171,000. The value of fishery products exported to the United States was divided as follows: Bladders, $9,262; caviar, $125,447; dried and salted fish, $23,684; herrings, $6,383. The principal market for the salmon and other fish taken at the fisheries of eastern Siberia is European Russia, but important exports are also made to Japan. Comparatively small quantities are sold to China and Chosen (Korea), and of course much of the salmon and salmon caviar that find their way to the markets in Germany and other European countries is shipped by way of European Russia.

Russia imports important quantities of fish, as is shown by the table following for 1912, in which the imports are shown by articles and countries of origin, in poods of 36.1128 pounds and rubles of 51.5 cents.

Countries of origin.	Fresh fish.		Sardines in oil.		Fish, pickled, preserved in oil, or stuffed.		Salted or smoked fish, except herring.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Poods.	*Rubles.*	*Poods.*	*Rubles.*	*Poods.*	*Rubles.*	*Poods.*	*Rubles.*
Austria-Hungary	12,636	32,718	1,244	14,899	353	4,867	67	202
Belgium			1,525	27,728	284	2,556		
United Kingdom	1,993	9,462	7,142	65,358	445	7,108	163	490
Germany	353,019	1,330,735	62,770	827,965	6,513	129,966	8,223	24,678
Netherlands	348	1,550	10,276	101,479	814	14,901	120	360
Greece			5	43		10	28	82
Denmark	8,617	10,900	1,856	15,526	354	6,300	92	276
Spain			1,913	20,760				
Italy	1	10	3,554	33,222	6	90	149	447
China	256,133	602,740	6	51	6	61	1,354	3,104
Norway	271,865	444,711	558	8,107	1,975	20,465	987	3,489
Persia	111,465	272,994					469,565	1,046,861
Portugal			7,705	82,028	3	40		
Roumania	44,282	237,383		19		9	53	167
United States	1,127	9,750	91	866			2	6
Turkey	67,231	80,471	15,091	138,137	65	834	1,108	3,304
France		8	80,688	890,610	2,704	33,082	226	678
Switzerland				2		31		1
Sweden	14,703	24,431	507	8,710	423	10,390	32	96
Japan	1,917	4,818			9	66	26	82
Other foreign countries	a 776	a 3,796	b 76	b 750				
Finland	360,613	1,466,907		11	54,704	339,337	202,686	287,215
Total	1,509,756	4,533,384	195,007	2,236,271	68,658	570,113	684,881	1,371,538

Countries of origin.	Herrings, salted or smoked.		Cod and all other kinds of fish, dried.		Fish admitted free of duty.		Lobsters, periwinkles, etc., fresh, salted, dried, or pickled.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Poods.	*Rubles.*	*Poods.*	*Rubles.*	*Poods.*	*Rubles.*	*Poods.*	*Rubles.*
Austria-Hungary	32,838	41,898	6	9	c 438,802	c 607,913		
Belgium	4,386	5,045						
United Kingdom	6,169,157	8,665,540	3	9			1	25
Germany	3,554,160	4,474,909	112	424			1,829	35,419
Netherlands	538,182	661,660					11	560
Greece	1	1	14	100			5	60
Denmark	42,910	53,294	589	865			3	60
Spain	2,836	3,407						
Italy	6,902	8,285					6	76
China	123	174	6,234	17,937			3,343	26,734
Norway	5,559,054	6,896,533	1,900	3,250	c 1,473,749	c 2,329,445		
Persia	3	5	6	127				
Roumania	27	32			d 3,980	d 9,115		
United States	2,839	3,548						
Turkey	5,707	6,849	41	123			28	303
France	31,567	42,521	5	5			8	470
Sweden	2,807,381	3,496,301	2	15			93	3,100
Japan	201	353	626	1,286			119	870
Other foreign countries	6	9	4	6			1	5
Finland	7,920	9,812	1,644	2,630			22	1,226
Total	18,766,200	24,370,176	11,186	26,786	1,916,531	2,946,473	5,469	68,908

a Includes 55 poods of fish, valued at 100 rubles, from Bulgaria.
b Includes 75 poods, valued at 740 rubles, from British India.
c Fish of all kinds, imported in Russian vessels at ports of the Government of Archangel by inhabitants of that Government.
d Fresh fish, imported during the winter, on sledges, at the Ismail customhouse, or at the customs toll house of Vilkovsk.

In addition to the items shown in the foregoing table, there were imports of oysters amounting to 5,040 poods, valued at 90,020 rubles, Germany being the principal source of supply. The imports of caviar were considerable, totaling 17,038 poods, valued at 560,513 rubles.

NETHERLANDS.

The fishing industry is one of the most important in the Netherlands and supplies not only most of the home demand, but furnishes enough material for a considerable export. The exports for 1913 amounted to about 418,000,000 pounds and the imports to some 67,000,000 pounds. The total value of the imports is stated to be $1,947,730, although this is an "official" valuation and may differ considerably from the real value.

The quantities of fish imported into the Netherlands in 1913 are shown in the following table in kilos of 2.2046 pounds:

Countries of origin.	Herrings, cured and salted.	Herrings, smoked.	Sea fish, fresh, all kinds.	Cod, salted.	Smoked, salted, or dried fish, n. e. s.	Cod (stock fish), dried.	River fish, including salmon and lamprey, fresh or not.	Anchovies.
	Kilos.	*Kilos.*	*Kilos.*	*Kilos.*	*Kilos.*	*Kilos.*	*Kilos.*	*Kilos.*
Belgium	202,689	20,412	84,211	7,461	52,139	8,481	26,402	58,687
France	.....	.....	.....	.....	.....	.....	.....	12,013
Germany:								
Prussia	203,595	63,638	567,761	.....	18,708	1,956	150,847	12,607
Hamburg	84,127	.....	.....	.....	12,225	2,818	60,479	27,742
Bremen	.....	.....	.....	.....	.....	.....	57,507	.....
Denmark	.....	.....	1,260	12,730	88,030	.....	37,000	.....
Norway	5,533,035	.....	536,006	16,200	1,812,566	5,432,549	14,696	26,675
Sweden	125,515	.....	660	.....	1,764,425	.....	.....	1,975
Russia	5,650	.....	.....	.....	1,391	.....	.....	.....
Spain	.....	.....	.....	.....	119,750	.....	.....	314,936
Dutch East Indies	.....	.....	.....	.....	993	.....	.....	.....
United States	.....	.....	.....	.....	911	1,245	89,348	7,500
United Kingdom	9,462,322	29,840	2,551,665	36,625	344,239	13,558	139,268	.....
Total	15,616,933	113,890	3,744,503	73,016	4,215,377	5,460,607	575,547	459,135

In addition to the imports given in the table, there were imports of 190,489 kilos of lobsters and oysters and 9,543 kilos of other shellfish.

SPAIN.

The fishing industry of Spain is extensive, giving employment to some 67,000 fishermen. The more important fish caught are sardines, tunny, cod, and anchovies. There are no fewer than 400 sardine canneries in the county and the exports of Spanish-canned sardines ranges in value from $3,500,000 to nearly $5,000,000 a year. France, Argentina, Germany, and Italy are the most important customers, and annual shipments of over $100,000 are made to Cuba, Great Britain, the United States, and Chile.

In spite of the importance of the domestic fisheries, great quantities of fish are imported, especially dried cod, which is imported chiefly from Norway, Newfoundland, Labrador, Iceland, France, Germany, and Scotland. Labrador cod is consumed only in the southeastern parts of Spain—from Seville to Valencia—as Barcelona, Madrid, and the more prosperous north prefer the more expensive Icelandic and Norwegian fish. Labrador cod is generally preferred in Malaga for winter consumption, because it is lightly sun cured and also because it is the cheapest. It is too lightly cured for summer

use. It is not graded and the individual fish weigh 1½ to 2 pounds. It is generally brought in bulk by sailing vessels, in full cargo lots of 150 to 200 tons. It is also brought by steamer in 4-hundredweight and 5-hundredweight casks.

Imports of fish by countries for 1912 are shown in the following table (kilo = 2.2046 pounds; peseta = 18.1 cents):

Articles and countries of origin.	Quantities.	Value.
Cod and stockfish:	*Kilos.*	*Pesetas.*
Ceuta	4	3
Germany	121,161	92,082
Algeria	.....	.....
Argentina	9,900	7,524
Denmark	7,591,882	5,769,830
France	1,645,832	1,250,832
United Kingdom	11,824,254	8,986,433
Greece	25,089	19,068
Italy	100	76
Norway	20,520,992	15,595,954
Portugal	118	90
Danish possessions in Europe	2,165,131	1,645,500
French possessions in America	39,131	29,740
British possessions in America	9,596,199	7,293,111
Total	53,539,793	40,690,243
Fish, fresh, or with just sufficient salt to preserve it:		
Canary Islands	159,579	51,065
Ceuta	1,600	512
Rio de Oro	1,710	547
Germany	36	12
France	81,810	27,140
United Kingdom	13	4
Norway	200	64
Portugal	6,305,301	2,017,696
Total	6,553,249	2,097,040
Salted, smoked, or pickled fish, except in tins:	*Kilos.*	*Pesetas.*
Spain [a]	7,357	3,164
Ceuta	2	1
Germany	1,754	754
France	11,933	5,131
United Kingdom	65,376	28,112
Netherlands	8,278	3,560
Italy	30	13
Morocco	726	312
Norway	410	176
Portugal	1,206,782	518,916
British possessions in America	1,396	600
Total	1,304,044	560,739
Oysters for breeding purposes, and mussels:		
Ceuta	2	1
Melilla	6,240	2,371
Algeria	57,173	21,726
France	371,844	141,300
Portugal	313,091	118,975
Total	748,350	284,373
All other oysters:		
France	62,013	40,308
United Kingdom	5	3
Total	62,018	40,311

[a] So stated in original returns of the Spanish Government.

ITALY.

Although the product of the Italian fishing industry is valued at about $4,000,000 a year, it is necessary to import over three times that much to supply the wants of the country. The most important of the fish imports is cod and other dried or smoked stockfish, which is valued at more than half of the total imports. The exports of fish from Italy are comparatively unimportant, the largest item being canned tunny fish. Canned sardines and anchovies are also exported to a limited extent.

The table that follows shows the imports of fish into Italy by countries during 1912, the latest year for which statistics are available (lira = 19.3 cents; metric quintal = 220.46 pounds):

Articles and countries of origin.	Quantity.	Value.
	Metric quintals.	*Lire.*
Fresh fish of all kinds:		
Austria-Hungary	5,484	877,440
Belgium	1,270	207,200
France	9,749	1,559,840
Germany	556	88,960
Greece	1,802	288,320
Malta	34	5,440
Montenegro	78	12,480
Russia	52	8,320
Spain	64	10,240
Switzerland	567	90,720
Turkey, European	61	9,760
Australia	8	1,280
Spanish Africa	16	2,560
Algeria	128	20,480
Tunis	753	120,480
United States	78	12,480
Total	20,700	3,316,000
Sardines, packed, and pilchards, dried or smoked:		
United Kingdom	10,292	514,600
Montenegro	19	950
Norway	173	8,650
Portugal	33	1,650
Spain	15,235	761,750
United States	91	4,550
Total	25,843	1,292,150
Cod and stockfish, dried or smoked:		
Belgium	475	40,375
Denmark	62,828	5,340,380
France	39,657	3,370,845
Germany	772	65,620
United Kingdom	54,782	4,656,470
Norway	196,543	16,706,155
Canada	109,614	9,317,190
United States	9,271	788,035
Total	473,942	40,285,070
Herrings, dried or smoked:		
Austria-Hungary	21	672
Denmark	106	3,392
France	119	3,808
Germany	10	320
United Kingdom	67,944	2,174,208
Norway	422	13,504
Netherlands	103	3,296
Spain	141	4,512
United States	105	3,360
Total	68,971	2,207,072
All other dried or smoked fish:		
Austria-Hungary	109	5,995
Germany	34	1,870
United Kingdom	897	49,335
Montenegro	568	31,240
Norway	8	440
Netherlands	20	1,100
Russia	14	770
Switzerland	21	1,155
Tunis	149	8,195
Total	1,820	100,100
Fish in brine:		
Austria-Hungary	3,249	266,418
France	49	4,018
Germany	21	1,722
United Kingdom	109	8,938
Greece	9	738
Malta	15	1,230
Portugal	16,089	1,319,298
Spain	49,626	4,069,332
Algeria	15,250	1,250,500
Fish in brine—Continued.		
Egypt	70	5,740
Tripolitania and Cirenaica	4	328
Tunis	485	39,770
Canada	21	1,722
United States	11	902
Total	85,008	6,970,656
Fish, marinated or in oil, in boxes:		
Sardines and anchovies—		
Austria-Hungary	119	17,850
France	147	22,050
Germany	58	8,700
United Kingdom	12	1,800
Norway	506	75,900
Portugal	22,250	3,337,500
Spain	828	124,200
Switzerland	3	450
Japan	4	600
Tripolitania and Cirenaica	19	2,850
Tunis	5	750
United States	4	600
Total	23,955	3,593,250
Tunny—		
France	51	10,455
Germany	13	2,665
United Kingdom	7	1,435
Portugal	11,152	2,286,160
Spain	23,754	4,869,570
Tripolitania and Cirenaica	8	1,640
Tunis	4,030	826,150
United States	13	2,665
Total	39,028	8,000,740
All other—		
Austria-Hungary	7	1,155
France	213	35,145
Germany	97	16,005
United Kingdom	422	69,630
Malta	3	495
Norway	87	14,355
Netherlands	16	2,640
Portugal	32	5,280
Spain	9	1,485
Brazil	5	825
Canada	3	495
United States	170	28,050
Total	1,064	175,560
Fish, marinated or in oil, otherwise packed:		
Sardines and anchovies—		
Austria-Hungary	18	2,700
France	4	600
Norway	72	10,800
Portugal	40	6,000
Total	134	20,100
Tunny—		
Germany	3	585
Spain	29	5,655
Total	32	6,240
All other—		
Austria-Hungary	4	600
France	7	1,050
Germany	39	5,850
United Kingdom	163	24,450
Spain	4	600
Total	217	32,550

Articles and countries of origin.	Quantity.	Value.	Articles and countries of origin.	Quantity.	Value.
Crustaceans and mollusks, edible, fresh:	*Metric quintals.*	*Lire.*	Crustaceans and mollusks, edible, cooked, or otherwise prepared:	*Metric quintals.*	*Lire.*
Austria-Hungary	1,626	73,170	France	8	1,200
Belgium	10	450	United Kingdom	48	7,200
France	314	14,130	British South Africa	6	900
Malta	8	360	United States	9	1,350
Montenegro	13	585			
Switzerland	32	1,440			
Tunis	1,442	64,890	Total	71	10,650
Total	3,445	155,025	Grand total	744,230	66,165,163

ROUMANIA.

The Roumanian fishing industry has made substantial progress in the last decade. Imports are still of importance, but the export trade has been growing and now amounts to more than $400,000 annually. The production of Dobrodgia, Bratesh, and the Crown land of Braila for the fiscal year 1910–11 amounted to 27,484,197 pounds of fresh fish and 3,639,795 pounds of salt fish. Carp, pike, tench, and whitefish are caught in large quantities. Some fresh fish are imported, but the bulk of the imports are salted, dried, pickled, and canned fish. The imports of dried and salted fish in 1910 amounted to 11,046,899 pounds, and Russia supplied nearly all of this.

The table that follows shows the imports of various fish by countries in 1910 (kilo = 2.2046 pounds; franc = 19.3 cents):

Articles.	Countries of origin.						Total.	
	Greece.	Germany.	Netherlands.	Russia.	Turkey.	Other countries.	Quantity.	Value.
Carp:	*Kilos.*	*Kilos.*	*Kilos.*	*Kilos.*	*Kilos.*	*Kilos.*	*Kilos.*	*Francs.*
Fresh				115		7,075	7,190	3,595
Salted				324,330	118,215	30,214	472,759	283,655
Smoked			2				2	2
Mullet, sheatfish, tench, and Danube herring:								
Fresh				4,411	1,741	1,479	7,631	4,579
Salted	16			94,090	9,200	1,627	104,933	73,453
Dried and smoked				71	101	88	260	312
Huso, sturgeon, sterlet, and other kinds of sturgeon:								
Fresh				286	1,198	2,759	4,243	4,243
Salted		7		324	465	973	1,769	2,123
Salmon, sole, turbot, trout, sea eel, fresh or salted	421	1,768		349	1,354	1,611	5,503	13,758
Other fish, n. e. s.:								
Fresh		156			9,000	67,274	76,430	22,929
Salted or dried	8,146	1,220	6	7,883,347	58,985	43,045	7,994,749	3,197,900
Smoked		16		64	50		130	104
Stockfish			476			136	612	612
Herrings:								
Pickled		1,262,672	228,579	37,481		62,989	1,591,721	636,688
Smoked	4,596	411		5	82	36	5,130	5,143
Smoked sea herrings		22			24	3	49	81
Mackerel:								
Dried, called "Tziri"					9,953	63	10,016	10,016
Salted sea mackerel				440	18,374	5	18,819	18,819
Tunny					261,762	8	261,770	523,540
Roach					14,951		14,951	17,941

Articles.	Countries of origin.						Total.	
	Greece.	Germany.	Netherlands.	Russia.	Turkey.	Other countries.	Quantity.	Value.
Sardines:	*Kilos.*	*Kilos.*	*Kilos.*	*Kilos.*	*Kilos.*	*Kilos.*	*Kilos.*	*Francs.*
Pickled, in casks	163,312	166,399	5,232	.....	13,238	117,529	465,710	227,855
Russian	.....	10	.....	.....	.....	9	19	11
Anchovies, pickled, in casks	.....	67	.....	39,221	5,979	.....	45,267	18,107
Sardines and anchovies, n. e. s	900	.....	7	.....	1,020	2,066	3,993	2,396
Pulp	49	.....	.....	.....	21,253	.....	21,302	31,953
Lobsters	.....	3	14	.....	786	461	1,264	5,056
Oysters, fresh	.....	75	128	5	16	11,451	11,675	11,675
Mussels and other shellfish	.....	37	.....	.....	9,418	1,370	10,825	1,083
Cray fish	.....	.....	.....	.....	23,944	6,530	30,474	9,142
Smoked fish preserves, sturgeon cutlets ("batog"), cod, and other kinds of sturgeon	.....	197	3	28	14	26	268	804
Smoked trout, salmon, eels, and sprats	.....	3,012	2	21	.....	236	3,271	13,084
Fish preserves, in cans, in fat, oil, and vinegar	135	23,338	11,386	600	1,049	449,695	486,203	972,406
Preserves of oysters, lobsters, and other crustaceans and mollusca, in fat, oil, and vinegar	48	6,636	1	.....	356	12,230	19,271	38,542
Caviar:								
Fresh	.....	5	.....	2,515	.....	130	2,650	39,750
Prepared or pressed	.....	.....	.....	33,458	106	291	33,855	406,260
Botargo (cavair of mullet)	.....	.....	.....	2	269	27	298	5,960
Spawn of pike and carp, and other spawn, fresh or salted	.....	3,820	.....	597,271	7,822	1,930	610,843	610,843
Melt, soft roe, and other edible fish remnants	.....	.....	.....	111	33	5	149	75

SERBIA.

The per capita consumption of fish in Serbia is low, as the local river fisheries are not of great importance and the great Continental fish markets are not particularly convenient. Statistics of the Serbian catch can not be obtained for recent years, but in 1906 the total amounted to 1,040,741 pounds. Carp are apparently the most important fish taken, the catch for 1906 amounting to 225,539 pounds. The next biggest catch was 102,234 pounds of catfish. A great variety of other river fish are caught, but not in important quantities.

The imports, which are not of great importance, are shown in the following table for 1911, in kilos of 2.2046 pounds and dinars, or francs, of 19.3 cents:

Articles and countries of origin.	Kilos.	Dinars.	Articles and countries of origin.	Kilos.	Dinars.
Fresh fish:			Dried fish, also smoked, salted, or prepared in some other way without oil, spices, and vinegar:		
Austria-Hungary	290,136	113,011	Austria-Hungary	12,435	13,809
Bosnia	14	15	Bulgaria	15	12
Bulgaria	2,317	1,699	Italy	41	84
Germany	11	105	Germany	3,019	2,132
Roumania	19,698	21,521	Norway	98	105
Russia	800	761	Roumania	13,428	11,954
Turkey	3,803	3,179	Russia	216,956	190,358
Total	316,779	140,291			

Articles and countries of origen.	Kilos.	Dinars.
Dried fish, also smoked, salted, or prepared in some other way without oil, spices, and vinegar—Continued.		
Turkey	22,980	24,785
France	21	61
Netherlands	1,670	869
Montenegro	147,281	67,786
Total	417,944	311,955
Fish, preserved in oil, vinegar, and spices, in casks:		
Austria-Hungary	1,571	1,595
Greece	4	15
Italy	388	1,180
Germany	1,900	1,832
Roumania	109	219
Turkey	10	25
Total	3,982	4,866
Caviar and substitutes for, fresh and preserved:		
Austria-Hungary	191	4,047
Bulgaria	2	59
Caviar and substitutes for, fresh and preserved—Continued.		
Germany	245	4,168
Roumania	6	85
Russia	92	1,247
Turkey	2	44
France	1	16
Total	539	9,666
Sea and other shell fish, crawfish, and sea turtle and other:		
Austria-Hungary	14	50
Belgium	9	15
Italy	4	10
Total	27	75
Yellow caviar:		
Austria-Hungary	1	5
Russia	35	410
Turkey	13	41
Total	49	456

GREECE.

[Consul A. B. Cooke, Patras.]

Although Greece has perhaps the longest and most varied littoral proportionately of any country in the world, its domestic supply of fish is entirely inadequate to the needs of the people and the demand of the market. In consequence of the limited supply of fresh fish that commodity commands a price on the retail market entirely beyond the means of the working people, the price of the most ordinary fish ranging from 17 to 20 cents throughout the year.

In view of this condition, Greece made a treaty some years ago with England by which Greece agreed to reduce the prohibitive duty on dried fish to the low rate of about one-half cent per pound, the quid pro quo being special exemption from duty on Greek currants and raisins entering Newfoundland. The result of this treaty was the immediate appearance on the Greek market of the dried Labrador cod or stockfish.

The cod is brought direct to this market from the Labrador coast or from Newfoundland in steamers or sailing vessels by the cargo. In 1912 there were thus brought to the markets of this consular district at least 42,000 quintals (quintal = 112 pounds) of cod, selling at the ports for $5.60 per quintal ($5 per 100 pounds). They were brought in by the local importers and disposed of to the retail dealers. Prices have been so favorable that the consumer has been able to buy dried cod at 7 to 8 cents a pound. He is therefore little inclined to pay 17 to 20 cents a pound for fresh fish.

In addition to the trade in cod, there is also an appreciable trade carried on in Labrador salmon. This article comes via Liverpool or New York, shipped in tierces of 300 pounds net. For prime large red fish the price in 1912 ranged from $26.75 to $28.25 per tierce at Greek ports. This market takes 300 to 400 tierces of salmon annually, which is consumed by the wealthier classes. The season extends from

October to March, fish of both kinds being sought especially during the seasons of religious fasting.

There is also a fair import trade in smoked herring, some $100,000 worth a year coming from England. There is very little trade in canned fish, owing to a less favorable duty on such goods. Small quantities of sardines in tin come from France and somewhat larger quantities in tierces.

IMPORT STATISTICS.

The Greek imports of fish in 1911 are shown in the following table, the quantities in okes of 2.8215 pounds, and the values in francs of 19.3 cents:

Articles and countries of origin.	Quantity.	Value.
Fresh fish:	*Okes.*	*Francs.*
Turkey	12,379	14,855
Egypt	5,160	6,192
Netherlands	3,582	4,298
Portugal	3,535	4,242
Total	24,656	29,587
Fish, salted, in brine, marinated, or smoked:		
Austria-Hungary	216,525	476,355
Portugal	203,605	447,931
Italy	67,533	148,572
United Kingdom	58,703	129,213
Turkey	13,330	29,326
Spain	9,242	20,332
Africa	2,969	6,532
Germany	1,959	4,310
France	1,389	3,056
Russia	835	1,837
East Indies	131	288
Bulgaria	65	143
Roumania	21	46
Netherlands	22,975	50,545
Total	599,282	1,318,486
Fish, salted, "lakerda and tsiri:"		
Turkey	112,444	337,332
United Kingdom	987	2,961
Italy	986	2,958
Germany	506	1,518
Portugal	241	723
Bulgaria	144	432
United States	142	426
Russia	13	39
Total	115,463	346,389
Herrings:		
United Kingdom	865,144	1,038,172
Austria-Hungary	12,430	14,916
Turkey	1,748	2,098
France	606	727
Sweden	565	678
Netherlands	323	388
Germany	140	168
Total	880,956	1,057,147
Mackerel and palamides, salted:		
Turkey	12,863	18,008
Bulgaria	200	280
Portugal	24	33
Total	13,087	18,321

Articles and countries of origin.	Quantity.	Value.
Fish called enos, lobsters, tunny in small boxes, etc.:	*Okes.*	*Francs.*
United Kingdom	17,154	68,616
France	2,532	10,128
Austria-Hungary	332	1,328
Netherlands	198	792
Norway	193	772
Germany	145	580
Turkey	88	352
Italy	81	324
Russia	23	92
United States	14	56
Total	20,760	83,040
Sardines in casks:		
France	2,176	9,139
Portugal	1,181	4,960
Netherlands	1,156	4,855
Italy	758	3,184
Austria-Hungary	583	2,448
Germany	312	1,310
United Kingdom	288	1,210
Turkey	38	160
Egypt	8	34
Total	6,500	27,300
Cod and stockfish:		
United Kingdom	2,241,266	1,793,012
France	1,759,405	1,407,524
United States	25,247	20,198
Turkey	11,407	9,126
Italy	7,440	5,952
Germany	6,499	5,199
Austria-Hungary	3,061	2,449
Crete	1,246	997
Norway	753	602
Russia	581	465
East Indies	564	451
Denmark	456	365
Total	4,057,925	3,246,340
Gray mullet, smoked:		
Italy	9,568	19,136
Turkey	624	1,248
Chios	190	380
Total	10,382	20,764
Dried, pulp dried or otherwise prepared, eels, and shrimps:		
Africa	43,898	96,575
Turkey	24,369	53,612
Italy	22,120	48,664
Russia	6,422	14,128

Articles and countries of origin.	Quantity.	Value.
Dried, pulp dried or otherwise prepared, eels, and shrimps—Continued.	*Okes.*	*Francs.*
Austria-Hungary	3,293	7,245
United Kingdom	1,334	2,935
France	810	1,782
Total	102,246	224,941
Caviar, black, and fish roe:		
Russia	5,707	79,898
Turkey	18	252
Egypt	18	252
United Kingdom	6	84
Total	5,749	80,486
Caviar, red, of all kinds:		
Russia	396,095	712,971
Turkey	1,442	2,596
Caviar, red, of all kinds—Continued.	*Okes.*	*Francs.*
United Kingdom	883	1,589
Austria-Hungary	525	945
Total	398,945	718,101
Oysters:		
Turkey	17,714	35,428
Austria-Hungary	313	626
Total	18,027	36,054
Shellfish, all other:		
Crete	101,901	50,950
Turkey	32,554	16,277
Bulgaria	1,100	550
Total	135,555	67,777

BULGARIA.

The fishing industry of Bulgaria is not of great importance, and such fish as are caught are for domestic consumption. Sturgeon, sterlet, salmon, and carp are caught in the Danube, and turbot, mackerel, and other similar fish are taken in considerable quantities in the Black Sea. The imports of fish are not of great value, the principal item being salted fish from Turkey and Russia, the former furnishing 2,396,990 kilos (5,813,085 pounds) in 1910 and the latter 207,906 kilos (458,349 pounds).

The following table shows the imports of fish into Bulgaria in 1910, the latest year for which statistics are available (kilo = 2.2046 pounds; franc = 19.3 cents):

Articles and countries.	Quantity.	Value.
Fish, fresh, of all kinds:	*Kilos.*	*Francs.*
Austria-Hungary	153	229
Roumania	11,390	14,211
Turkey	39,530	19,557
Total	51,073	33,997
Fish, salted, of all kinds:		
Austria-Hungary	229	213
Germany	1,546	874
Greece	5,826	3,766
Italy	6,455	4,705
Roumania	16,086	10,891
Russia	207,906	137,127
Turkey	2,396,990	1,466,954
France	382	419
Netherlands	550	345
All other countries	828	487
Total	2,636,798	1,625,781
Mackerel, dried, and other dried fish:		
Russia	706	901
Turkey	19,088	26,807
Other countries	154	129
Total	19,948	27,837
Fish, smoked, of all kinds; herrings and stockfish:		
Austria-Hungary	33	133
Germany	1,320	5,630
Norway	227	563
Roumania	296	499
Fish, smoked, of all kinds; herrings and stockfish—Continued.	*Kilos.*	*Francs.*
Russia	1,114	3,200
Turkey	343	780
France	43	143
Other countries	58	65
Total	3,434	11,013
Fish, not elsewhere specified:		
Total, from Germany	4	45
Fish roe:		
Turkey	54	844
Other countries	3	22
Total	57	866
Caviar, black:		
Austria-Hungary	28	475
Germany	7	210
Roumania	113	2,373
Russia	340	6,425
Servia	4	130
Turkey	60	1,049
Total	552	10,662
Pike roe:		
Roumania	282	1,139
Russia	284	1,130
Turkey	5,594	16,481
Total	6,160	18,750

Articles and countries.	Quantity.	Value.
Caviar, red:	*Kilos.*	*Francs.*
Austria-Hungary	61	45
Roumania	4,059	6,791
Russia	153,865	188,358
Turkey	16,040	30,234
France	21	51
Total	174,046	225,479
Crabs, mussels, oysters, etc., fresh:		
Turkey	8,946	7,213
Belgium	87	203
Roumania	57	29
Total	9,090	7,445

Articles and countries.	Quantity.	Value.
Pulp:	*Kilos.*	*Francs.*
Total, from Turkey	20,080	33,137
Meat of lobsters, mussels, turtles, and other marine animals:		
Total, from Turkey	2	3

SWITZERLAND.

The principal, in fact the only important, import of American fish into Switzerland, consists of frozen salmon. It is imported through Hamburg houses and is said to be sold at times for the popular Rhine salmon. The American product retails at 24 to 41 cents a pound and Swiss salmon sells at 57 to 77 cents.

The retail prices of canned salmon range from 16 to 31 cents per can, the better grades coming from the United States. Canned shrimp packed in New Orleans and Biloxi have appeared in the market and are becoming popular. Shrimp sells for 27 cents per half-pound can and 41 cents per pound can.

The Swiss market for fish is, of course, not an extensive one, as may be judged from the following table, which shows the Swiss imports of fish by countries for 1913 (metric quintal = 220.46 pounds; franc = 19.3 cents):

Articles and countries of origin.	Quantity.	Value.
Fresh-water fish, fresh or frozen:	*Metric quintals.*	*Francs.*
Germany	2,095	377,100
Austria-Hungary	339	71,190
France	1,257	377,100
Italy	671	107,360
Netherlands	348	69,600
United Kingdom	333	163,170
Russia	930	176,700
Sweden	51	16,575
Norway	206	70,040
United States	1,281	243,390
Total	7,511	1,672,225
Salt-water fish, fresh or frozen:		
Germany	10,358	673,270
France	4,669	840,420
Italy	66	14,520
Belgium	2,589	517,800
Netherlands	1,138	91,040
United Kingdom	2,462	344,680
Denmark	1,148	80,360
Total	22,430	2,562,090
Fish, dried, salted, pickled, smoked, or otherwise prepared:		
In receptacles weighing more than 3 kilos—		
Germany	2,424	266,640
Austria-Hungary	15	1,650
France	1,271	158,875
Italy	1,349	141,645

Articles and countries of origin.	Quantity.	Value.
Fish, dried, salted, pickled, smoked, or otherwise—Centinued.		
In receptacles weighing more than 3 kilos—Continued.	*Metric quintals.*	*Francs.*
Belgium	304	38,000
Netherlands	620	89,900
United Kingdom	1,172	140,640
Russia	1	110
Sweden	1	110
Norway	1,592	175,120
Denmark	230	25,300
Portugal	142	19,880
Spain	1,289	206,240
Canada	11	1,320
United States	47	5,640
Total	10,468	1,271,070
In receptacles weighing 3 kilos or less—		
Germany	399	67,830
Austria-Hungary	12	2,040
France	3,996	1,098,900
Italy	332	56,440
Belgium	143	28,600
Netherlands	11	2,310
United Kingdom	437	91,770
Russia	9	1,530
Sweden	18	3,060
Norway	1,522	258,740
Denmark	5	850
Portugal	1,263	194,450
Spain	846	126,900
British India	3	495

Articles and countries of origin.	Quantity.	Value.
Fish, dried, salted, pickled, smoked, or otherwise—Continued.		
In receptacles weighing 3 kilos or less—Contd.	*Metric quintals.*	*Francs.*
China	1	165
Canada	150	24,750
United States	80	13,200
Colombia	1	165
Australia	3	495
Total	9,231	1,972,690

Articles and countries of origin.	Quantity.	Value.
Mussels and shellfish, oysters, lobsters, etc., fresh:	*Metric quintals.*	*Francs.*
Germany	5	1,500
France	696	184,440
Italy	100	40,000
Belgium	121	42,350
Netherlands	1	240
United States	1	250
Total	924	268,780

EGYPT.

The fishing industry of Egypt is of considerable importance, especially at Lake Menzola, where no less than 4,000 persons are employed. There is also fishing on an important scale in the Nile and at the Delta. The value of the annual catch is estimated at about $1,000,000. Dried and salted fish eggs, known as batarekh, are greatly relished.

Practically no fresh fish are imported, the only important purchases abroad being preserved fish of some sort. Over 4,000,000 pounds are imported from the United Kingdom. Imports for 1913 are shown in the table that follows in Egyptian pounds of $4.943 and kilos of 2.2046 pounds:

Articles and countries of origin.	Quantity.	Value.
Fish, salted, smoked, or preserved:	*Kilos.*	*Egyptian pounds.*
United Kingdom	1,913,772	38,025
British possessions in the Mediterranean	1,914	87
British India	1,902	34
Australia and New Zealand	84,722	5,677
British possessions in Africa	648	19
Abyssinia	4,202	84
Germany	100,538	1,526
Austria-Hungary	5,709	264
Brazil	31	11
Denmark	37,784	1,005
Spain	121,216	5,621
United States	7,148	281
France	252,400	9,899
French Mediterranean possessions	720	64
Greece	156,332	3,797
Netherlands	9,121	194
Italy	319,158	13,447
Norway	298,833	11,246

Articles and countries of origin.	Quantity.	Value.
Fish, salted, smoked, or preserved—Continued.	*Kilos.*	*Egyptian pounds.*
Portugal	411,322	14,224
Roumania	213	20
Russia	12,704	615
Sweden	726	38
Switzerland	5,818	769
Turkey	168,802	7,968
Total	3,915,735	114,915
Caviar of all kinds:		
Austria-Hungary	151	173
France	50	119
Greece	190	14
Russia	41,586	3,713
Switzerland	149	294
Turkey	1,295	181
Total	43,421	4,494
Shellfish, all kinds: Total, from Turkey	35,927	367

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